

## CLAIMS

### What is claimed is:

1. An auxiliary memory device for automation controllers, comprising:
  - 5 a connecting unit, which is connected to the automation controller for transmitting and receiving a specific datum;
  - a switching unit, which is connected to the connecting unit for switching the transmission directions of the specific datum;
  - a storage unit, which contains at least one memory element and is connected to the switching unit for storing the specific datum; and
  - 10 a load unit, which contains a plurality of load components connecting to a work power supply for receiving the work power and generating a load.
2. The auxiliary memory device of claim 1, wherein the storage unit further comprises:
  - 15 a power supply pin, which is connected to the work power supply for receiving the work power;
  - a ground pin, which, along with the connecting unit, is connected to a ground end to form a ground loop;
  - a pulse wave pin, which, along with the connecting unit, is connected to a data end for receiving and transmitting the specific data from the automation
  - 20 controller.
3. The auxiliary memory device of claim 1, wherein the auxiliary memory device transmits the specific datum in the storage unit to the automation controller when the switching unit is closed.

4. The auxiliary memory device of claim 1, wherein the auxiliary memory device receives the specific datum in the storage unit from the automation controller when the switching unit is open.

5. The auxiliary memory device of claim 1, wherein the connecting unit is an RS232 interface.

6. The auxiliary memory device of claim 1, wherein the load components further comprises:

a first load component, which is a resistor for generating a load between the work voltage and the switching unit;

10 a second load component, which is a resistor for generating a load between the work voltage and the pulse wave pin; and

a third load component, which is a resistor for generating a load between the work voltage and the data pin.